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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,009	09/09/2003	Jeffrey W. León	85487LMB	2285

7590

10/03/2005

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EXAMINER

TRUONG, DUC

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/658,009	Applicant(s) LEON ET AL.	
	Examiner Duc Truong	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) 1-28 and 44-64 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The last office action is hereby withdrawn and a new ground of rejection is cited herein based on Applicant's arguments.

Claims 29-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sutton et al (4,997,772) in view of Pierce et al (4,258,001).

Sutton discloses a water insoluble polymeric particle having an inner core comprising a first polymer derived from one or more ethylenically unsaturated polymerizable monomers (see col. 2, line 62 to end), and an outer shell comprising a second polymer derived from one or more ethylenically unsaturated polymerizable monomers, at least one of which monomers has reactive groups which are either directly or indirectly reactive with free amino or sulhydryl groups of an immunoreactive species, the particle having none of the tracer within the outer shell or on its outer surface, and the particle being covalently attached through the reactive groups on the outer surface to an immunoreactive species (see col. 3, lines 1-35; col. 4, line 30 onto col. 5, line 3).

Note that the immunoreactive species attached to the particles can be enzyme, proteins or other biological compounds---(see col. 4, lines 40-64; col. 5, lines 4-9).

Note also that the first monomers have been disclosed at col. 6, line 40 et seq.

Note also that the shell of the particles comprises a second polymers which can be represented by the formula (II) in that z can be 0 and F in the formula II of the reference is considered the claimed H of formula I in claim 36, representing vinylsulfonyl

Art Unit: 1711

group (see col. 9, lines 25-28); and the polymeric particles can be prepared using graft copolymerization (see col. 11, line 17) to the external surface of said core (core-shell).

The disclosure of the reference differs from the instant claims in that it does not disclose the particle composition comprising monodisperse polymer bead stabilized by vinylsulfonyl functionalized polymers, as in the claims.

However, the reference does disclose the claimed core/shell polymeric particle in that vinylsulfonyl functionalized polymers are grafted to the external of said core.

Pierce discloses organo-polymeric beads having a uniform size such as monodisperse beads (see col. 30, lines 41-43) stabilized by vinylsulfonyl functionalized polymers (see col. 12, line 41).

It would have been obvious to one of ordinary skill in the art the use the core/shell polymeric particle composition, as disclosed in Sutton, to determine the monodisperse polymer beads stabilized by vinylsulfonyl functionalized polymers, as disclosed in Pierce, in order to gain the advantages of the combinations of the references, that being a particle composition comprising monodisperse polymer beads stabilized by vinylsulfonyl functionalized polymers which are grafted to the external surfaces of said beads, which has the added properties of being useful for the analysis of various substances in liquids, especially high MW proteinaceous substances in aqueous biological liquids (see Abstract) using fluorescence Immunoassay element (see col. 30, line 32 et seq.)

Pierce provides evidence that monodisperse polymer beads stabilized by vinylsulfonyl functionalized polymers is well known in the art.

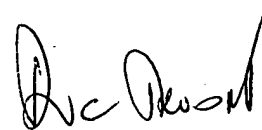
Art Unit: 1711

The use of said monodisperse polymer beads of Pierce, to determine the polymeric particles of Sutton to have the added properties would not provide an unexpected result to one of ordinary skill in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Truong whose telephone number is 571-272-1081. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DUCTRUONG
PRIMARY EXAMINER